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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SHASHANK MERCHANT

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06/16/2004

MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER

LY, ANH VU H

ART UNIT

PAPER NUMBER

2667

21

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/315,973

Applicant(s)

MERCHANT ET AL.

Examiner

Anh-Vu H Ly

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14 and 19 is/are rejected.
- 7) ☒ Claim(s) 10-13 and 15-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-9, 14, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Murthy et al (US Patent No. 5,515,376).

With respect to claims 1 and 14, Murthy discloses in Fig. 1, a multi-port bridge comprising plurality of ports for transmitting and receiving data packets (a plurality of ports for receiving and transmitting data packets). Murthy discloses (col. 10, lines 49-54) that packet forwarding is the process by which a received packet is transmitted on one or more ports 3. While the forwarding decisions are made primarily by the Main CPU, the port controllers 37 and the I/O CPU 43 also participate in the mechanics of forwarding (a decision making engine responsive to received data packets for directing the received data packets to the ports selected for transmission of the received data packets).

Murth discloses (col. 10, lines 32-45) that packets received from the ports are stored in the share memory 39, which is based on a 1.5 Mbyte array of SRAMs. The configured array has an aggregate bandwidth of 400 Mbytes/second. Shared memory is made available to the port controllers 37, the Main CPU 42, and the I/O CPU 43 via the shared memory interface 38 (Fig. 6). Each Port controller 37 is allocated 32 Kbytes of shared memory for receive packets and 64 Kbytes of shared memory for transmitted packets. Herein, the shared memory 39 illustrated in

Fig. 6 should be understood as memory being shared between the port controllers, Main CPU 42, and I/O CPU 43 not among the ports. A number of Kbytes in the shared memory has been reserved or allocated specifically for each port controller for storing the received packets and transmitted packets (a plurality of queuing devices corresponding to plurality of ports for queuing data blocks representing data packets received by the corresponding ports).

Murthy discloses (col. 12, line 62 – col. 13, line 1) that the Main CPU 42 periodically polls all RDRS 72 to determine if any queued packets are to be forwarded. Based on the SA 16 and DA 15 fields of the packet 13 and upon the port number of the RDR 72, on which the packet is queued, the Main CPU will carry out the Forwarding Algorithm as in Fig. 16. The result of this process will be an XMASK value 55 designating the port or ports to which the packet 13 is to be forwarded (logic circuitry responsive to plurality of queuing devices for processing the data blocks in accordance with a prescribed algorithm to determine destination information).

Murthy discloses (col. 13, lines 9-25) that I/O CPU 43 will scan the RDRs 72 to determine if any Packet Descriptor 48 are in a “Forwarded” state 67. When such a Packet Descriptor 49 is found, it will be copied to each TDR 71 as indicated by the set bits in the associated XMASK value 55 (a forwarding circuit responsive to the logic circuitry for identifying at least one transmit port).

Murthy discloses (col. 18, lines 18-35) port monitoring process wherein packets arriving at the bridge or generated internally may be copied to one of more monitoring ports 10 (Fig. 1) (a traffic capture mechanism for enabling one port of plurality of ports to output data transferred via multiple other selected ports of plurality of ports).

With respect to claim 2, Murthy discloses (col. 18, lines 20-22) that a monitoring device 9 attached to the monitoring port 10 (sniffer port) is then able to provide analysis of the monitored packets (one port is a sniffer port for connecting to a probe for monitoring data traffic).

With respect to claim 3, Murthy discloses (col. 18, lines 30-35) that the network manager may identify monitored ports 3 (sniffed ports) and monitoring port 10 (sniffer port). When port monitoring is enabled, packets associated with the monitored ports 3 (multiple other selected ports are multiple sniffed ports monitored by the probe via the sniffer port) will be forwarded to monitoring ports 10.

With respect to claims 4-5, Murthy discloses (col. 18, lines 18-35) a port monitoring feature for monitoring the monitored ports via one or more monitoring ports. Therefore, circuit (s) for enabling and/or selecting monitored ports and monitoring port is/are necessary (a sniffer port/sniffed port configuration circuit for selecting the sniffer/sniffed ports among plurality of ports).

With respect to claim 6, Murthy discloses (col. 18, lines 30-35 and Fig. 1) that when port monitoring is enabled, packets associated with the monitored ports 3 will be forwarded to monitoring ports 10 (configured to enable and disable monitoring of data traffic on multiple sniffed ports).

With respect to claims 7 and 19, Murthy discloses (col. 19, line 60 – col. 22, line 35) a process of monitoring including the steps of modifying each entry in the Forwarding Table 80, Broadcast/Multicast Table 81, and Management Table 82 including the XMASK bits corresponding to the monitored and monitoring ports (sniffed port configuration is configured for storing a sniffed port vector having plurality of port bits corresponding to plurality of ports).

With respect to claim 8, Murthy discloses in Fig. 17A, showing the modified Forwarding Table 80. Since port 2 is to be monitored on port 4, each XMASK entry 55 in “row 2” 60 will have bit 4 set (port bits are set into predetermined states to select at least one of multiple sniffed ports).

With respect to claim 9, Murthy discloses in Fig. 9, a forwarding descriptor or simply a bit vector in which each bit indicates a port to which the packet is to be dispatched (generating a forwarding descriptor identifying the ports for transmitting the data packets).

Allowable Subject Matter

2. Claims 10-13 and 15-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H Ly whose telephone number is 703-306-5675. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 6/14/07